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## Chapter 5

### Appendix Section

- Detailed Neighborhood Analysis

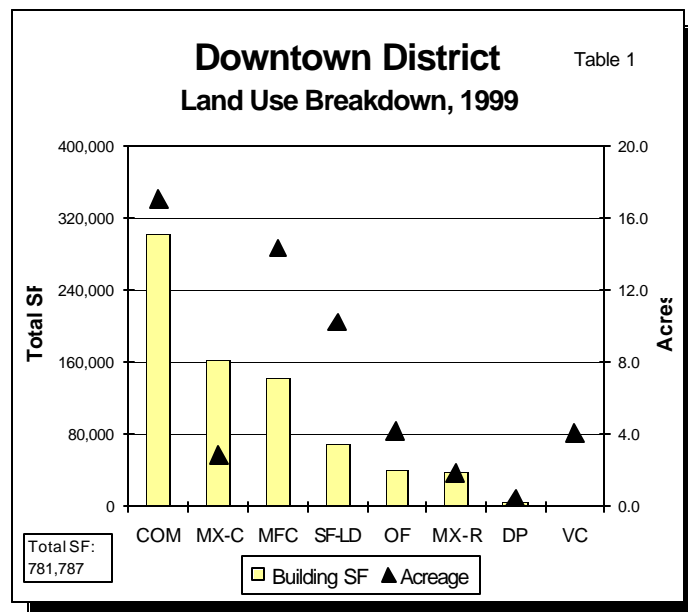
# Detailed Neighborhood Analysis

## A. DOWNTOWN DISTRICT

- **Distribution of Land Uses** – The Downtown District has a healthy mix of employment-generating and civic uses, including the Town of Blacksburg municipal offices (see Figure 1). This contrasts the other Districts, which may have a high concentration of residential uses with non-residential uses constituting a smaller percentage of the total.

The 96 employment-generating parcels comprise the largest share (45.1%) of the 213 total parcels in Downtown. Commercial properties (59 parcels) account for over 61% of the total employment-generating parcels, with mixed use-commercial (15 parcels) and professional office (14 parcels) properties

accounting for another 30.2% of the total. Almost all of the residential properties (40 of the 50 parcels) are designated as low-density, single unit-detached housing. The remaining properties are classified as duplex and multi-family. However, the 10 multi-family parcels contain 206 housing units.



Employment-generating uses account for 26.0 acres, or 51.0%, of the taxable acreage in Downtown. Commercial properties use almost 66% (17.1 acres) of the employment-generating total. Residential uses consume 25.0 acres of land in Downtown and vacant properties only account for 4.1 acres of land on 26 separate parcels. Only the South End District has similar land use patterns in Blacksburg.

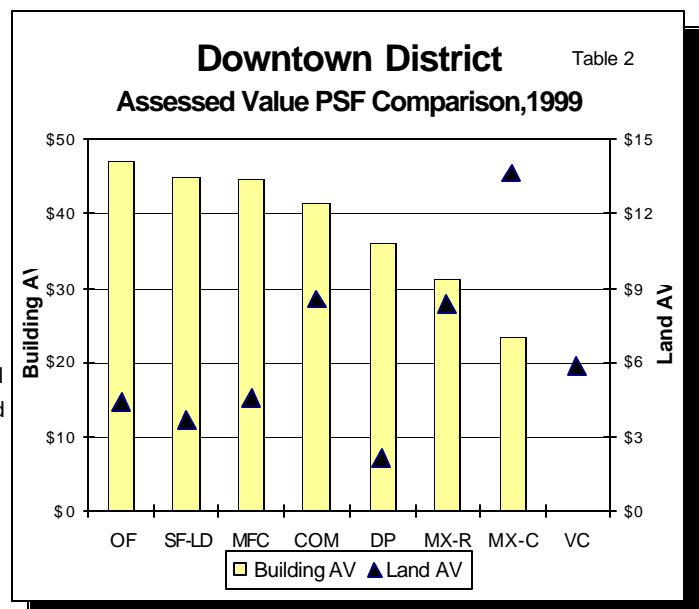
Commercial (301,491 SF) and mixed use-commercial properties (161,571 SF) are the predominant land uses, comprising 74.7% of the District employment-generating total in terms of square footage. On the residential side, multi-family complexes have the largest share of building space, totaling 143,065 SF. Single-family low-density<sup>1</sup> housing totals 71,122 SF, for an average unit size of 1,778 SF. This average is slightly higher than the Town-wide average for low-density residential properties (1,587 SF per unit) despite the significantly smaller lot sizes (0.25 acres per lot for Downtown compared to 0.39 acres per lot for Blacksburg). This finding is consistent with Downtown's current development densities.

- **Distribution of Tax Base** – As of 1999, the Downtown District contributed \$37.4 million to the taxable value in Blacksburg. Despite only accounting for less than 1% of the total taxable acreage in Blacksburg, Downtown constitutes 3.9% of the total taxable value in Town. In fact, Downtown is contributing the most (\$728,212 per acre) to the tax base as compared to the average of \$148,636 for all other districts. This is primarily due to the higher density development pattern in this District.

Downtown offers a significant contrast in the Town's employment-generating tax base. Despite only accounting for 4.7% of the total acreage consumed by these uses in Blacksburg, the District constitutes almost 23% of the Town's employment-generating parcels and 13.1% of the total building square footage.

- **Development Density** – Much of the development in this District is more intensely developed, including the immediate areas surrounding the Midtown District. As a result, Downtown has the highest development densities in Blacksburg. The employment-generating uses have an average floor area ratio (or FAR) of 0.48. In comparison, the Town-wide average is 0.17. The residential properties

<sup>1</sup> "Low-Density" is defined as any single-family residential property with less than 1 acre of land. "Rural" is defined as those single-family residential properties with 1 or more acres of land.



(0.20 FAR) maintain a FAR ratio twice as high as the Town average (0.10 FAR). These FAR levels, in combination with the limited availability of vacant land, indicate that there are very few opportunities for increasing density and infill development in Downtown.

A floor area ratio measures the density of development on a given parcel or area by calculating the gross building square footage as a percentage of total land square footage. Therefore, an 8,000 SF building located on a 10,000 SF lot would have a FAR of .80, or in other terms, the total building square footage equals 80% of the total land area.

- **Assessed Value (Land and Buildings)** – Assessed values per square foot for land and building space are often used to compare different types of real estate in different locations. Land and building values are sensitive to location and the highest values are generally reserved for properties that enjoy good visibility, transportation access, and are located within tight real estate markets. Building values are also a function of the type of space constructed and the quality of materials and level of finish applied to the building's interior and exterior. As an example, a Class A office building located at a prime downtown location will be far more valuable on a per square foot basis than a 50,000 SF corrugated metal warehouse at the end of a country road.

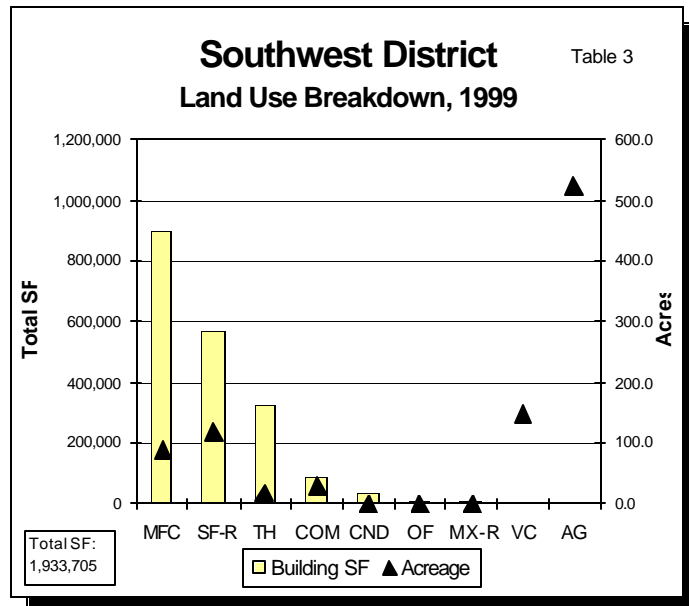
Downtown's central location and proximity to the Virginia Tech campus bolster property values, giving the District the highest per acre land value for all of the districts in Blacksburg. In fact, the average value for an acre of commercial land (\$367,622) in Downtown is over three times greater than the next District (Midtown at \$109,081). The residential land values in Downtown (\$181,529 per acre) are also significantly higher than the Town average (\$46,669). Downtown is the primary spot for commercial activity, especially for entertainment/dining facilities and specialty-retail activity.

In terms of employment-generating building values, Downtown (\$35.87/SF) has a lower average per square foot value to the Town-wide level (\$43.01/SF). Despite this fact, all employment-generating per square foot average values in the District are within \$1 of the Town-wide averages, with professional offices (\$47.17/SF) maintaining the highest value and mixed use with commercial uses (\$23.26/SF) at the low end. The disparity in

overall average is due to the mix of uses. Downtown has a higher concentration of lower value uses. Residential building values in Downtown (\$44.65/SF) are also lower than the Town-wide average (\$58.88/SF), primarily due to the significant disparity in single-family, low-density residence values (see Figure 2).

## B. SOUTHWEST DISTRICT

- **Distribution of Land Uses** – The Southwest District has a strong residential market, with a healthy mix of single-family, townhouse and multi-family complexes (see Figure 3). Residential uses (613 parcels) comprise over 80% of the total parcel count in the Southwest District (745 parcels). Of the residential parcels, almost half (48.6%) are single-family dwellings (298 parcels). The remainder is split amongst townhouses (246 parcels), condominiums (56 parcels) and multi-family complexes (13 parcels). It is important to note that although there are only 13 multi-family complexes, they account for almost 1,700 living units. In



contrast, there are only 16 employment-generating parcels, of which 5 are designated as parking lots. Commercial properties (7 parcels) account for 63.6% of the developed employment-generating properties. Vacant and agricultural properties account for 35 parcels.

Almost 85% of Southwest is undeveloped or tax-exempt. The vacant and undeveloped parcels account for almost 670 of the 955 acres of taxable land. Civic and institutional uses cover over 950 additional acres in the District, including a sizeable land area owned by Virginia Tech. This indicates that only 267 of the 1,906 acres in the Southwest District are currently taxable, developed land. Of those 267 developed acres,

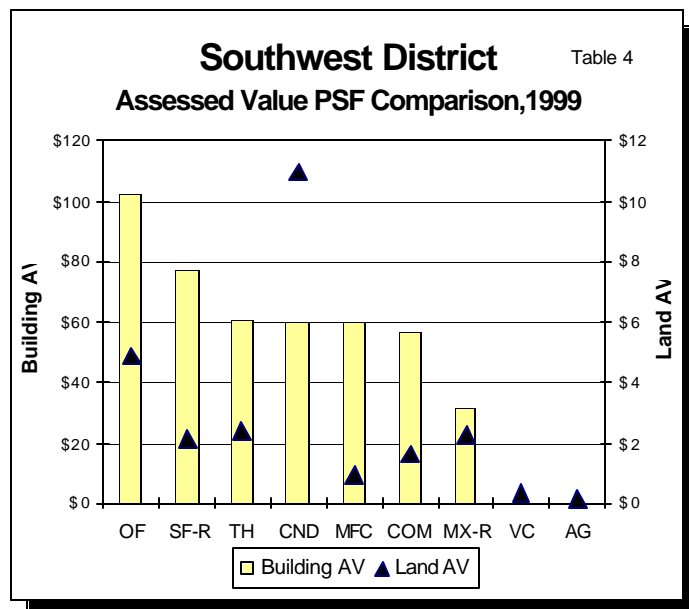
employment-generating uses (41.7 acres) account for 15.9%, with commercial properties comprising 27.4 acres and parking lots using 12.6 acres. Multi-family complexes comprise the largest share (73.8%) of residential uses, followed by single-family, rural dwellings (13.0%) and townhouses (10.8%).

Almost all of the taxable building space in the Southwest District is dedicated to residential uses. In fact, building square footage dedicated to employment-generating uses accounts for less than 6.0% of the District total. Multi-family complexes total 899,830 SF, comprising the largest share (49.0%) of residential space. Single-family, rural houses (31.3%), townhouses (17.7%) and condominium units (2.0%) account for the remainder of the total. In contrast, commercial space leads the employment-generating uses with 85,565 SF, distantly followed by office space and mixed-use properties with a residence as the primary use. The total square footage dedicated to employment-generating uses (99,140 SF) in Southwest is the lowest of all the districts.

- **Distribution of Tax Base** – The Southwest District accounted for \$151.9 million in taxable value for 1999, comprising 12.9% of the Town-wide tax base. Similar to the land use distribution, residential uses comprise the majority (90.2%) of the total taxable assessed value with employment-generating properties accounting for 5.6%.

Interestingly, agricultural and vacant land only constituted 3.7% of the total taxable assessed value (\$5.6 million) despite comprising most of the taxable acreage in the District.

Residential uses in Southwest constitute 15.2% of the Town's total residential tax base and 18.2% of the total



residential property count despite only accounting for 7.3% of the total residential acreage. This is primarily due to higher average residential land assessed values in the District. In contrast, the employment-generating tax base in the Southwest District only contributes 3.8% to the Town-wide total despite accounting for 7.5% of the total acreage.

- **Development Density** – Residential and non-residential uses in Southwest have significant differences in development densities. The employment-generating uses have an average floor area ratio, or FAR, of 0.05, which is the lowest non-residential FAR average of all the Districts. In comparison, the residential uses have an average FAR of 0.19, which is slightly below the Downtown level for having the highest residential FAR average.

When comparing each land use separately, Southwest FAR values more closely resemble the Town-wide averages. The most significant differences being commercial uses (0.07 FAR in Southwest compared to 0.20 FAR in Blacksburg) and condominiums (1.13 FAR in Southwest compared to 1.65 FAR in Blacksburg). This indicates that the District has a more significant difference in land use distribution than it does in development densities.

- **Assessed Value (Land and Buildings)** – As revealed in Figure 4, the disparity of residential and non-residential land is also evident in terms of assessed value per acre of land. Employment-generating land averages \$64,253 per acre in the District while the Town, as a whole, has an average of \$76,270 per acre. Despite this, the District does maintain higher average non-residential building assessed values. For example, Blacksburg has an average building assessed value of \$46.81 per square foot of professional office space compared to the \$102.73 per square foot in Southwest. Commercial buildings in the District also maintain a higher average per square foot value (\$56.69) than the Town average of \$41.28 per square foot.

In contrast, the District's residential land has a higher average assessed value (\$74,576 per acre) than the Town's \$46,669 per acre in addition to having a slightly higher average building value (\$65.16/SF in Southwest compared to the \$58.88/SF for Blacksburg). In fact, none of the residential uses have an average building value at or below their respective Town-wide average. This disparity in assessed value performance can most likely be attributed to the stronger market push to develop the Southwest District as a

residential neighborhood rather than a commercial center.

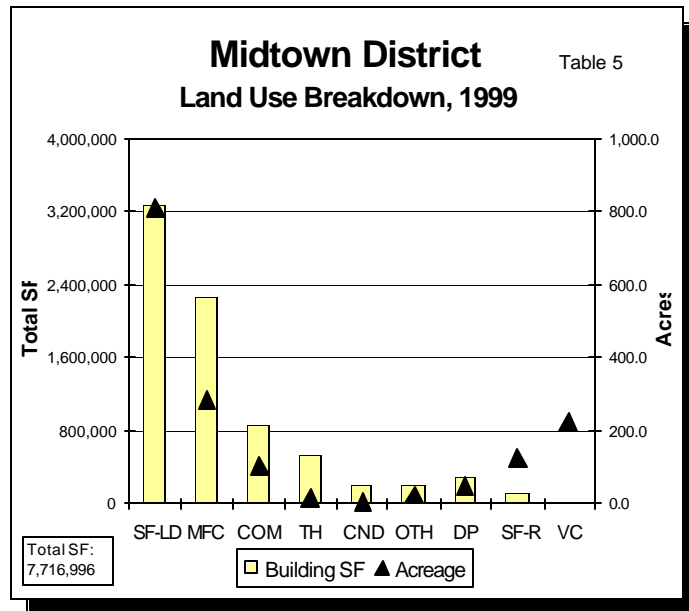
### C. MIDTOWN DISTRICT

➤ **Distribution of Land Uses –**

Midtown has a strong residential base.

Residential uses comprise 71.4% of the total taxable acreage and 85.9% of the total taxable value in the District. Low-density, single-family homes dominate the market, accounting for 66.9% (2,704 parcels) of all residential parcels, over 62.9% (813 acres) of the

total residential acreage, and about 48.9% (3.29 million SF) of the total building square footage. It is important to note that multi-family complexes ranked ahead of single-family low-density housing in terms of total unit count (3,656 units), while ranking second in total acreage (283.64 acres) and total building square footage (2.25 million SF).



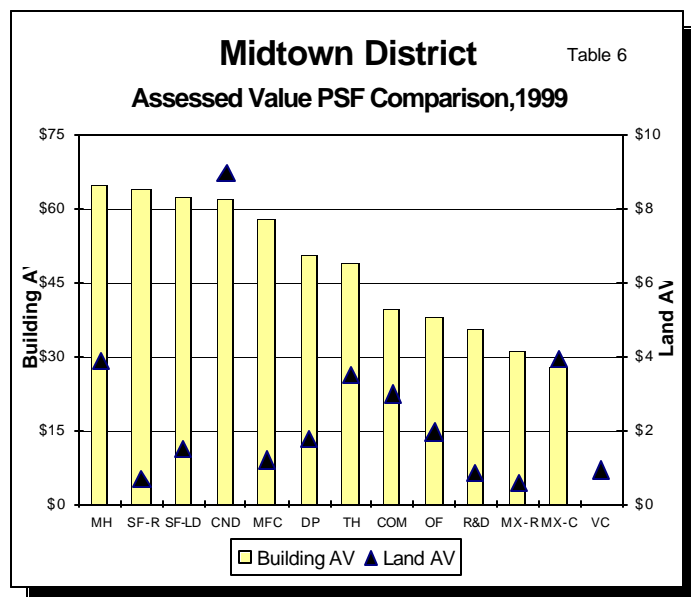
Employment-generating uses located within Midtown comprise a significant share of the Town-wide non-residential tax base (see Figure 5). There are 148 parcels dedicated to employment-generating uses contributing almost 1.1 million square feet to the Town's commercial tax base and roughly 27% of the Town's employment-generating assessment. Commercial uses comprise most of the employment-generating total, accounting for 80.8% of the total square footage, 65.5% of the total acreage, and 63.5% of the total parcel count. Professional offices and parking lots make significant, but much smaller, contributions to the District as well.

- **Distribution of Tax Base –** Midtown is the backbone of the Blacksburg residential and employment-generating tax base. The District contributed almost \$538.8 million to the Town's taxable assessed value, constituting almost 50.0% of Blacksburg's total taxable value in 1999. Of the District



total, residential uses comprised 85.9% (\$479.0 million) of the District total, with employment-generating uses comprising 10.7% (\$59.8 million) and vacant parcels accounting for 1.6% (\$8.9 million) of the total. A more detailed comparison reveals that Midtown accounts for 53.4% of the Town-wide residential tax base, 27.0% of the employment-generating tax base, and 25.2% of the vacant and agricultural value. In addition, Midtown contains 46.7% of the civic and institutional assessed value in Blacksburg as well. Despite all of this, Midtown only contains 24.5% of the total taxable acreage in Blacksburg and 14.3% of the exempt land area.

Low-density, single-family housing (\$258.5 million) contributes 54.0% of the total residential assessed value and almost 48.0% of the total taxable assessed value in Midtown. Multi-family complexes (\$145.5 million) and townhouses (\$29.5 million) also constitute significant portions of the residential tax base. For employment-generating properties, commercial uses (\$48.3 million) comprise 80.7% of the District total, followed by research and development uses (\$3.7 million) and professional offices (\$3.2 million).



- **Development Density** – In terms of the average employment-generating density, Midtown has a slightly lower FAR (0.16 FAR) compared to the Town-wide total (0.17 FAR), contrasting the below-average values of several of the individual land uses in the district. In terms of residential development, Midtown has a slightly higher average FAR (0.12 FAR) than Blacksburg (0.10 FAR) despite the significantly higher FAR value for townhouses (0.76 FAR in Midtown compared to 0.64 FAR for Blacksburg).
- **Assessed Value (Land and Buildings)** – Midtown has a slightly higher

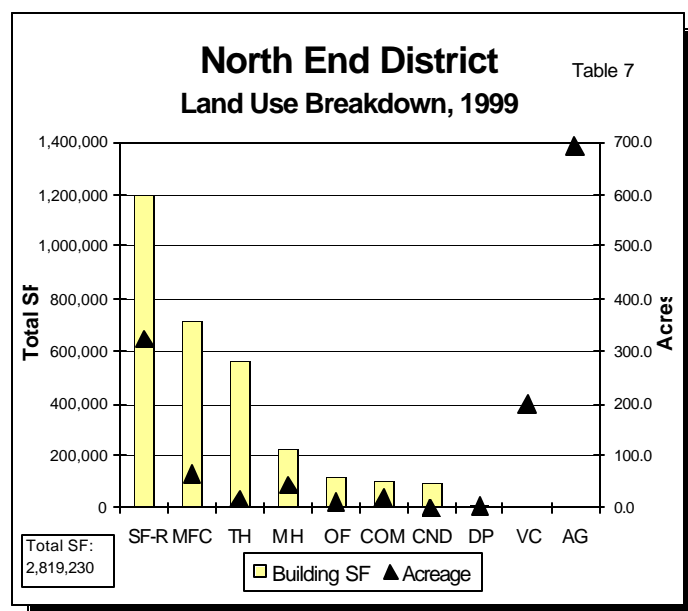
assessed value, on average, than Blacksburg. In terms of land assessment, each of the land use sections are valued higher in Midtown, with employment-generating (\$109,081 per acre) valued 28.9% higher, residential (\$62,525 per acre) valued 34.1% higher, and vacant land (\$40,393 per acre) valued 65.1% higher than the Town-wide averages. This is primarily due to the District's proximity to Downtown and Virginia Tech as well as to the relatively small amount of vacant land in the District as compared to the other Districts.

In contrast, building assessed values are much closer to Town averages than land values in Midtown. Employment-generating buildings maintain a slightly lower value (\$39.64/SF) than the Town (\$43.01/SF). A more detailed review reveals that the District has a slightly lower assessed value for the individual existing uses, including commercial properties (\$39.93/SF in Midtown compared to \$41.28 for Blacksburg). Residential buildings in Midtown (\$59.23/SF) actually have a slightly higher average assessed value than the Town average of \$58.88, with the individual use values ranging within a few dollars of the Town average (See Figure 6).

## D. NORTH END DISTRICT

- **Distribution of Land Uses** – Similar to the Southwest District, North End has a high concentration of residential uses with very few employment-generating properties (see Figure 7).

Of the 1,630 properties in North End, over 75% are currently residential. The District has a healthy mix of single-family, rural houses (703 parcels) with condominium and townhouse developments (510 parcels). In contrast, there are only 25 employment-generating parcels (1.5% of the District total), of which 9 are designated as parking lots.



Commercial properties (12 parcels) and professional office uses (4 parcels) account for the remaining developed employment-generating properties. Vacant and agricultural properties account for 9.9% of the District total (161 parcels).

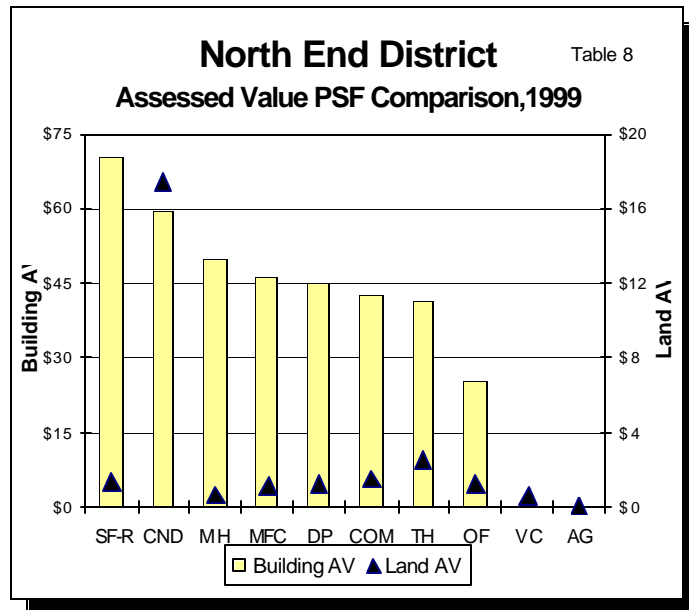
In terms of acreage, 72.6% of the District is undeveloped or tax-exempt. The vacant and undeveloped parcels account for just under 900 of the 1,535 acres of taxable land. Civic and institutional uses account for almost 300 additional acres in the District. This indicates that only 502.4 of the 1,831.3 acres in North End are currently developed taxable land, of which only 50.4 acres are dedicated to employment-generating uses. Single-family, rural dwellings encompass 323.1 acres (71.5%) of the residential total followed by multi-family complexes (64.2 acres) and mobile home parks (43.7 acres).

Almost all of the taxable building space in North End is dedicated to residential uses, with only 6.9% (208,993 SF) of the District total dedicated to employment-generating uses. For employment-generating uses, professional office space (111,280 SF) accounts for the most building space with commercial space totaling the remaining 97,713 SF.

- **Distribution of Tax Base** – In 1999, North End accounted for \$204.2 million in taxable value, or 17.4% of the Town-wide tax base. Similar to the Southwest District, residential uses comprise most (89.8%) of the total taxable assessed value in North End, with employment-generating properties accounting for only 4.5%. Agricultural and vacant land only constituted 4.1% of the total taxable assessed value (\$8.4 million) despite comprising most (58.2%) of the taxable acreage in the District.

North End residential uses comprise 20.4% of the total Blacksburg residential tax base and 21.9% of the total residential square footage despite only totaling 14.7% of the Town-wide residential acreage. In contrast, employment-generating parcels contribute 5.0% to the Town-wide employment-generating tax base while accounting for 5.0% to the total square footage and 9.0% of the acreage total.

- **Development Density** – The employment -generating uses in the North End have a relatively low FAR (0.10) compared to the Town-wide average of 0.17 FAR. This is primarily due to the high influence of properties dedicated as parking lots. At the land use level, commercial properties have a significantly lower FAR (0.12) than the Town average (0.20) while the office properties have a significantly higher FAR (0.30 for the District compared to 0.22 for Blacksburg).



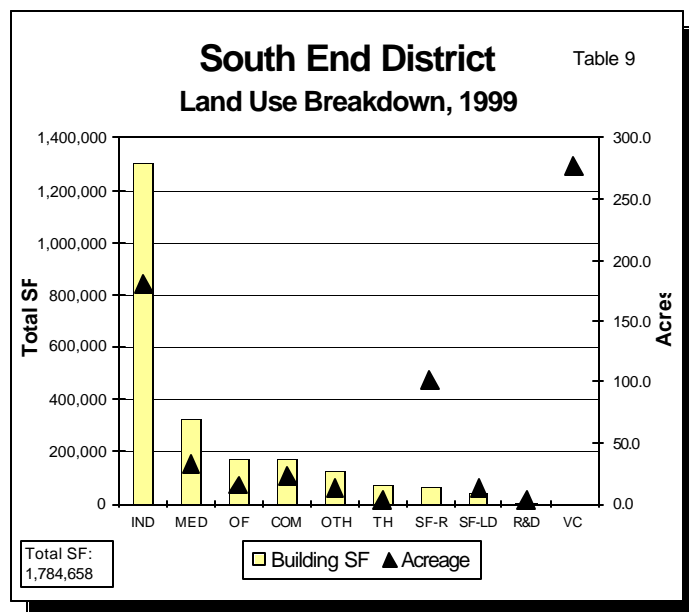
Residential uses have a higher FAR in North End (0.14 FAR) compared to the Town-wide average (0.10 FAR). Interestingly, all of the residential land uses in North End have higher FAR values than their respective Town averages, with the most notable being condominium properties that have a District average of 2.54 FAR compared to the Town average of 1.65 FAR. This indicates that residential developers are making greater attempts to maximize their available land area in the North End.

- **Assessed Value (Land and Buildings)** – The employment-generating properties in the North End have slightly lower assessed value, on average, than the Town as a whole. In terms of land assessment, the District's average assessed values (\$41,806 per acre) is almost half of the Town-wide average of \$76,270 per acre. This difference is seen in each of the Districts employment-generating land use categories as well (see Figure 8). In contrast, the average employment-generating building value (\$33.90/SF) in North End more closely reflects the Town-wide average of \$43.01/SF. This is primarily due to the disparity in the average office building value (\$25.42/SF in North End compared to the \$46.81/SF Town average).

Unlike employment-generating land values, the residential land assessed value (\$56,284 per acre) is 20.6% higher than the Town average of \$46,669 per acre. This is most likely due to the high concentration of condominium properties, which carry a significantly higher per acre value than other residential uses. In contrast, the average residential building value is slightly lower in North End (\$56.32/SF) than the average value for Blacksburg (\$58.88/SF). Agricultural and vacant land has a slightly lower average land assessed value (\$9,118 per acre) than Blacksburg (\$10,768 per acre).

## E. SOUTH END DISTRICT

- **Distribution of Land Uses** – As already mentioned, South End contains all industrial uses in Blacksburg. In addition, the District also maintains a strong commercial and professional office market (see Figure 9). Unlike the other Districts, residential uses have a relatively small impact on the South End land use pattern. Professional offices (79 parcels) constitute the largest portion of employment-generating properties accounting for 62.7% of the employment-generating total, followed by commercial properties (12.7%) and industrial uses (17.5%). For residential properties, townhouses (41.0%) accounted for the highest percentage. Single-family homes totaled 66 parcels, with 37 parcels, or 28.2%, being classified as rural and 29 parcels as low-density (24.8%).



Vacant properties account for the largest share (34.4%) of taxable acreage, with employment-generating uses comprising 33.5% of the District total and residential uses accounting for another 16.6%. Industrial uses (67.1%) and medical services (12.5%) constitute the largest employment-generating land

uses while single-family housing (87.7%) accounts for almost all of the developed residential land.

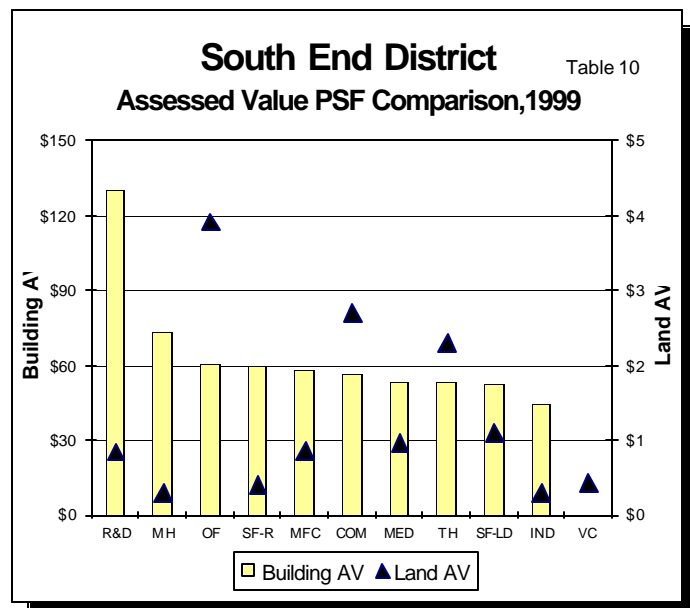
Employment-generating uses comprise 86.7% of all taxable building space in terms of square footage in South End. South End also accounts for 47.8% of the total employment-generating square footage in Blacksburg. Industrial uses constitute 65.7% of all District employment-generating building space (1.3 million SF), followed by medical services (16.6%), professional offices (8.8%) and commercial space (8.7%).

- **Distribution of Tax Base** – Unlike most of the other Districts, employment-generating uses account for most of the District's tax base. South End accounted for \$133.2 million in 1999, representing 11.3% of the total Town non-exempt tax base. Employment-generating uses totaled \$106.1 million, or 79.6% of the District total. In contrast, residential uses totaled \$20.7 million in assessed value while vacant land added an additional \$4.9 million.

Employment-generating uses in South End comprise a large portion of the Town-wide total, accounting for 47.9% of the Town's employment-generating tax base, 47.8% of building space, and 48.0% of the total developed acreage. In contrast, residential uses only constitute 2.3% of the Town-wide residential tax base, 2.4% of total square footage and 4.3% of the acreage total.

- **Development Density** – South End employment-generating uses (0.17 FAR) maintain a similar floor area ratio to the Town average (0.17 FAR) despite the more rural and spread-out look of the District. Research and development is the only use in South End (0.03 FAR) with a significantly lower FAR than the Town average (0.19 FAR).

- **Assessed Value (Land and Buildings)** – On average, property values in the South End are below the Town averages. In terms of land value, both employment -



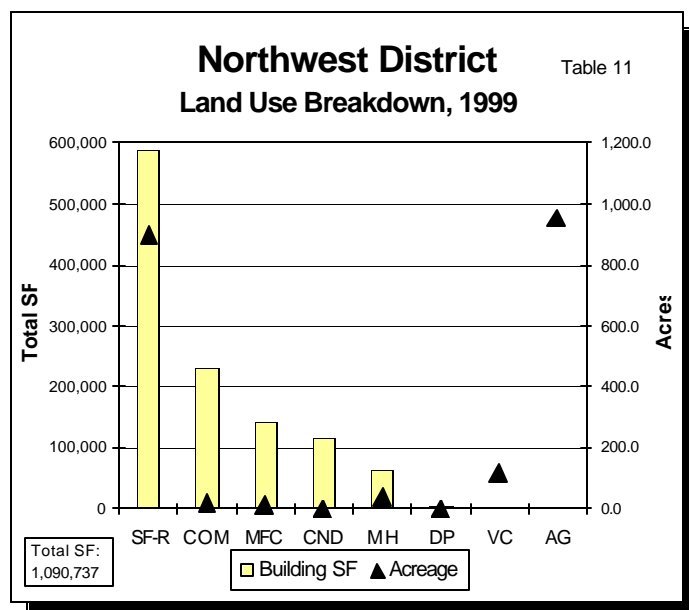
generating (\$35,588 per acre) and residential (\$23,482 per acre) properties have values about one-half the average of the Town-wide values. Vacant land in South End (\$18,284 per acre) is only about 75% of average market value in Blacksburg. In addition, the average residential building value (\$57.71/SF) in South End is slightly below the Town average (Figure 10).

It is important to note that the average building assessment for each employment-generating land use in the South End District is typically higher than the respective Town average. As a result, the District has a higher building assessed value (\$48.64) than the Town. This is mostly due to the influence of the high-value buildings associated with the Virginia Tech Corporate Research Center.

## F. NORTHWEST DISTRICT

- **Distribution of Land Uses** – The Northwest District has historically been a rural area with low-density residential homes (see Figure 11). Residential uses constitute the largest percentage (70.3%) of parcels in Northwest. In fact, single-family, rural housing accounts for 52.3% of the District parcel total. There is also a concentration of condominium units (117 parcels) in the southeast corner of Tom's Creek. Agricultural and vacant parcels account for 22.8% of the District total, while civic and institutional (35 parcels) and employment-generating (13 parcels) uses comprise the remaining 6.9%.

The Northwest District is the least developed District in the Town. Over 1,065 acres are currently classified vacant or agricultural land. In addition, almost 900 acres are currently developed as single-family houses with a minimum lot size of 1 acre. As a result, 1,963.7 acres, or 96.1% of the taxable land area in Tom's



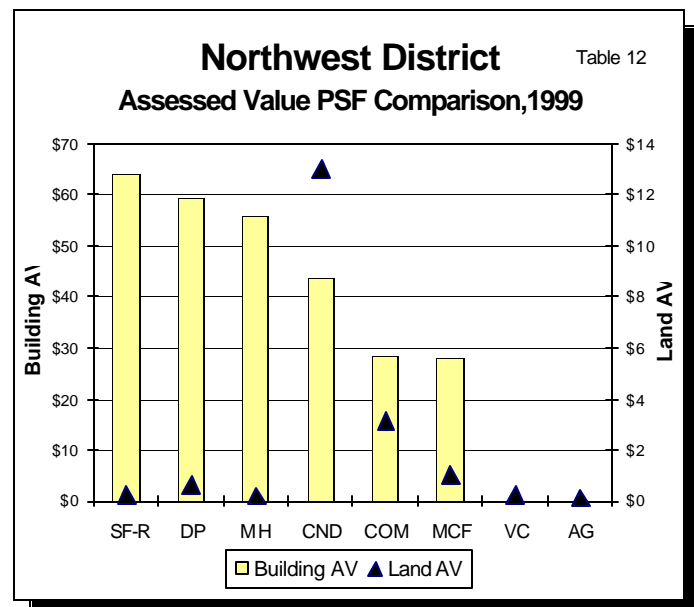
Creek, are undeveloped or potentially underutilized. The remaining residential properties total 58.9 acres, or 2.6% of all taxable land, while employment-generating properties account for less than 1.0%.

- **Distribution of Tax Base** – Northwest contributed \$83.3 million to the Town taxable assessment in 1999, or only 7.1% of the Town-wide total. Of the District value, residential uses accounted for 76.5% of the District total, followed by employment-generating properties (10.3%). Vacant and agricultural properties totaled less than \$6.5 million, or 7.8% of the District total, despite having about 45% of the total land area.

Compared to Town-wide values, residential uses only contributed 7.1% of total residential assessed value and total square footage and 31.0% of the total residentially developed acreage. Employment-generating properties performed slightly better at a much smaller scale, contributing 3.9% to the Town's tax base and 5.5% to the total building space while accounting for 3.5% of the total acreage used by employment-generating properties in Blacksburg.

- **Development Density** – The employment-generating uses in Northwest (0.27 FAR) have a significantly higher development density than the Town-wide average of 0.17. It is important to remember that this is due to the limited number of employment-generating parcels located along University City Boulevard. On the other hand, residential properties have a much lower development density (0.02 FAR) than the residential average in Blacksburg (0.10 FAR).

- **Assessed Value (Land and Buildings)** – There is a disparity in land value comparisons for Northwest (see Figure 12). Residential (\$13,649 per acre) and vacant and agricultural (\$6,052 per acre) uses have lower assessed land values than the Town does (\$46,669 and \$10,768 per acre respectively). This is typical for areas like





Tom's Creek, which are far away from the Town center and do not have direct road access or water and sewer utilities. In contrast, employment-generating land values in the District (\$103,774 per acre) are above the Town-wide average (\$76,270 per acre). This is primarily due to the density of development and the value of commercial properties in the University City Boulevard area.

In terms of building square-footage, both employment-generating (\$28.48/SF) and residential (\$55.33/SF) uses have lower building values than the Town averages (\$43.01 and \$58.88/SF respectively). Interestingly, commercial properties in the District (\$28.48/SF) have a significantly lower (31.0%) building value than the Town average (\$41.28/SF), despite the high land values. On the residential side, lower District-level building values for multi-family complexes and condominiums are the main reason for the disparity.